WHAT IS CLAIMED IS:

1. A piezoelectric oscillator comprising a piezoelectric vibrator that has a piezoelectric element which is excited in a predetermined frequency, an oscillation amplifier transistor that excites the piezoelectric element by flowing a current to the piezoelectric element, a combined capacitor that is connected between a base of the oscillation amplifier transistor and the ground and that forms a part of a load capacitance, and an emitter resistor that is inserted between an emitter of the oscillation amplifier transistor and the ground, wherein

a non-inductive load is connected to a collector of the oscillation amplifier transistor, and a capacitor is inserted between the collector and the emitter of the oscillation amplifier transistor.

2. The piezoelectric oscillator according to claim 1, wherein

the combined capacitor is composed of a capacitor that is connected between the base and the emitter of the oscillation amplifier transistor and a capacitor that is connected between the emitter and the ground, and the base of the oscillation amplifier transistor is biased at a predetermined potential.

3. A piezoelectric oscillator comprising a piezoelectric vibrator that has a piezoelectric element which is excited in a predetermined frequency, an oscillation amplifier transistor that continuously excites the piezoelectric element by flowing

a current to the piezoelectric element, a combined capacitor that is connected between a base of the oscillation amplifier transistor and the ground and that forms a part of a load capacitance, and an emitter resistor that is inserted between an emitter of the oscillation amplifier transistor and the ground, wherein

a second transistor is connected in cascade to the collector of the oscillation amplifier transistor, a non-inductive load is connected to a collector of the second transistor connected in cascade, and a capacitor is inserted between the collector of the second transistor and the emitter of the oscillation amplifier transistor.

4. The piezoelectric oscillator according to claim 3, wherein a base of the second transistor is grounded via a capacitor.

5. The piezoelectric oscillator according to claim 3 or 4, wherein

the combined capacitor is connected between the base and the emitter of the oscillation amplifier transistor and between the emitter and the ground respectively, and the base of the oscillation amplifier transistor and the base of the second transistor are biased at a predetermined potential respectively.

6. The piezoelectric oscillator according to any one of claims 1 to 5, wherein

the capacitance of the capacitor inserted between the

collector and the emitter is at or above the capacitance of the capacitor inserted between the emitter of the oscillation amplifier transistor and the ground.

7. The piezoelectric oscillator according to claim 6, wherein the capacitor inserted between the collector and the emitter has a predetermined capacitance thereby to suppress a collector output voltage and an emitter output voltage of the oscillation amplifier transistor and suppress a current of the piezoelectric element.